

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

11	24	4.4	419	18	AAM1977
12	24	4.4	549	12	AAR1337
13	24	4.4	544	16	AAR67383
14	24	4.4	544	16	AAM1975
15	24	4.4	544	18	AAM1863
16	24	4.4	544	20	AAY23905
17	24	4.4	544	22	AAY3735
18	24	4.4	544	22	AEE1757
19	24	4.4	544	22	AAD139061
20	24	4.4	544	23	ABP94272
21	24	4.4	545	21	AAB1080
22	24	4.4	545	18	AAM1976
23	24	4.4	545	18	AAM1864
24	23	4.2	547	22	AAB6060
25	23	4.2	574	22	AAB6061
26	23	4.2	612	22	AAD139061
27	21	3.9	301	22	ARG81041
28	21	3.9	539	22	AAG81884
29	21	3.9	539	21	AAY23917
30	21	3.9	545	20	AAY37390
31	20	3.7	309	19	AAM61146
32	20	3.7	309	20	AAY48893
33	20	3.7	309	23	ABB73497
34	20	3.7	327	20	AAY4910
35	20	3.7	327	23	ABB73516
36	20	3.7	523	19	AAM61044
37	20	3.7	523	20	AAY4891
38	20	3.7	523	23	ABB73497
39	20	3.7	539	20	AAY23919
40	20	3.7	540	9	AAP81351
41	20	3.7	540	16	AAB81610
42	20	3.7	540	18	AAM2100
43	20	3.7	540	19	AAM4702
44	20	3.7	540	20	AAY23911
45	20	3.7	540	21	AAT76193
46	20	3.7	540	22	AEE1755
47	20	3.7	540	22	AAB8118
48	20	3.7	540	22	AAB73506
49	20	3.7	540	23	AAT76510
50	20	3.7	540	23	AAT76511
51	20	3.7	540	23	AAT76193
52	20	3.7	540	23	AAU76194
53	20	3.7	540	23	AAU50750
54	20	3.7	541	16	ARR7384
55	20	3.7	541	20	AAY4909
56	20	3.7	541	20	AAY23910
57	20	3.7	541	20	AAY23913
58	20	3.7	541	23	ABB73515
59	20	3.7	544	18	AAM2099
60	20	3.7	560	9	AAP80215
61	20	3.7	572	11	AAR4715
62	20	3.7	573	11	AAR4715
63	20	3.7	573	16	AAR4765
64	20	3.7	573	16	AAR4765
65	20	3.7	588	9	AAP80364
66	20	3.7	638	21	AAB81790
67	20	3.7	639	22	AAB11609
68	20	3.7	648	22	AAB16114
69	20	3.7	648	22	AAB31511
70	18	3.3	17	17	AAR4845
71	18	3.3	18	18	AAM13523
72	18	3.3	18	18	Hsp-65 peptide epi
73	18	3.3	19	22	Hsp-55 peptide epi
74	18	3.3	21	22	AAB8285
75	18	3.3	24	22	AAB8285
76	18	3.3	26	22	AAB88310
77	18	3.3	540	23	ABP73506
78	18	3.3	544	23	AEE2070
79	17	3.1	17	22	AAB8288
80	17	3.1	23	22	AAB8295
81	17	3.1	23	20	AAT23914
82	17	3.1	539	23	AAT7744
83	17	3.1	539	23	AAT87656
<b>Description</b>					
Streptococcus pneumoniae					
Amino acid sequence					
Streptococcus pyogenes					
Amino acid sequence					
Streptococcus suis					
Amino acid sequence					
Listeria monocytogenes					
Amino acid sequence					
Amino acid sequence					
Francisella tularensis					
Amino acid sequence					
Hsp-65 peptide epi					
Hsp-65 peptide epi					
Hsp-65 peptide epi					
Hsp-65 peptide epi					
Hsp-65 peptide epi					
Hsp-65 peptide epi					
Mycobacterium tuberculosis					
Amino acid sequence					
Mycobacterium avium					
Amino acid sequence					
Mycobacterium leprae					
Amino acid sequence					
Mycobacterium marinum					
Amino acid sequence					
Mycobacterium smegmatis					
Amino acid sequence					
Mycobacterium ulcerans					
Amino acid sequence					
Mycobacterium marinum					
Amino acid sequence					
Mycobacterium ulcerans					
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Mycobacterium ulcerans					
Amino acid sequence					

84	17	3.1	548	17	AAR93368	157	14	2.6	95	22	ANU45697
85	17	3.1	548	22	AAG92732	158	14	2.6	115	23	ABP34469
86	17	3.1	549	21	AKI96462	159	14	2.6	216	22	ABG44456
87	16	2.9	549	16	AAR94778	160	14	2.6	413	22	ABT8874
88	16	2.9	549	16	AAR4456	161	14	2.6	478	21	AAG1747
89	16	2.9	549	17	AAR94827	162	14	2.6	493	21	AAG1746
90	16	2.9	549	18	AHW4505	163	14	2.6	537	20	AYV23912
91	16	2.9	551	22	ABB7742	164	14	2.6	538	21	ANG1745
92	16	2.9	552	13	AAR20195	165	14	2.6	538	22	ANG9011
93	16	2.9	552	103	AAB41321	166	14	2.6	538	22	ABR78973
94	16	2.9	553	23	ABP03730	167	14	2.6	548	21	AAB01278
95	16	2.9	553	112	AHW60130	168	14	2.6	550	21	ABD1275
96	16	2.9	553	112	AYV14876	169	14	2.6	552	20	AYV23918
97	16	2.9	553	112	ABB73482	170	14	2.6	568	21	AAB01277
98	16	2.9	553	118	ABP05879	171	14	2.6	568	21	AAB01279
99	16	2.9	553	119	AHW60145	172	14	2.6	570	21	AAB01276
100	16	2.9	553	215	AYV14892	173	14	2.6	572	11	AAB05042
101	16	2.9	553	215	AYV14892	174	14	2.6	572	20	AYV23921
102	16	2.9	553	22	ABB1615	175	14	2.6	572	21	AAB01274
103	16	2.9	553	440	AAR23362	176	14	2.6	587	15	AYV9846
104	16	2.9	553	440	AYV23905	177	14	2.6	647	22	AAB31620
105	16	2.9	553	540	AAR22363	178	14	2.6	822	22	ABG08883
106	16	2.9	553	540	AAR22363	179	14	2.6	822	22	ABG29163
107	16	2.9	553	544	AYV15745	180	13	2.4	15	18	AYV23924
108	16	2.9	553	545	AYV15745	181	13	2.4	15	18	AYV23924
109	16	2.9	553	548	AYV15745	182	13	2.4	182	21	ABP04450
110	15	2.8	553	17	AAR7468	183	13	2.4	182	23	ABP02449
111	15	2.8	553	17	AAU9970	184	13	2.4	276	20	AKW88781
112	15	2.8	553	17	AAR94871	185	13	2.4	276	20	AKW89994
113	15	2.8	553	18	AHW3359	186	13	2.4	544	12	AAR13335
114	15	2.8	553	18	AHW33046	187	13	2.4	545	16	AAR4339
115	15	2.8	553	18	AHW12354	188	13	2.4	545	16	AAR67374
116	15	2.8	553	152	ABP42395	189	13	2.4	545	17	AAR67374
117	15	2.8	553	152	ABP42395	190	13	2.4	546	14	AAR41661
118	15	2.8	553	160	AAR5071	191	13	2.4	546	14	AAR41200
119	15	2.8	553	160	AAR5071	192	13	2.4	546	19	AKW98776
120	15	2.8	553	160	AAR5071	193	13	2.4	563	21	AAG33401
121	15	2.8	553	160	AAR5071	194	13	2.4	580	21	AAG35400
122	15	2.8	553	160	AAR5071	195	13	2.4	587	21	AAG9546
123	15	2.8	553	167	AAR67385	196	13	2.4	605	21	AAG35399
124	15	2.8	553	167	AAR67385	197	13	2.4	605	21	AAG35399
125	15	2.8	553	167	AAR67385	198	13	2.4	607	21	AAG3324
126	15	2.8	553	167	AAR67382	199	13	2.4	607	21	AAG3324
127	15	2.8	553	167	AAR67382	200	12	2.2	15	17	AAR9484
128	15	2.8	553	167	AAR65070	201	12	2.2	15	17	AAR94853
129	15	2.8	553	167	AAR65070	202	12	2.2	15	18	AAR9545
130	15	2.8	553	167	AAR65070	203	12	2.2	15	18	AAR9545
131	15	2.8	553	167	AAR65070	204	12	2.2	15	18	AAR9545
132	15	2.8	553	167	AAR65070	205	12	2.2	17	17	AAR9477
133	15	2.8	553	167	AAR65070	206	12	2.2	17	17	AAR94828
134	15	2.8	553	167	AAR65070	207	12	2.2	17	18	AAR93506
135	15	2.8	553	11	AAR04713	208	12	2.2	17	18	AAR93506
136	15	2.8	553	178	AAR14946	209	12	2.2	110	23	ABP24896
137	15	2.8	553	178	AAR14946	210	12	2.2	541	19	AWT74045
138	15	2.8	553	178	AAR01657	211	12	2.2	550	20	AYV23923
139	15	2.8	553	178	AAR01657	212	12	2.2	551	20	AYV23907
140	15	2.8	553	178	AAR01657	213	12	2.2	582	20	AYV23920
141	15	2.8	553	21	AAR93333	214	11	2.0	110	21	AAB1466
142	15	2.8	553	21	AAR93334	215	11	2.0	110	23	ABP24896
143	15	2.8	553	22	AAB58605	216	11	2.0	111	22	ABP8872
144	15	2.8	553	22	AAB53116	217	11	2.0	111	22	ABP88289
145	15	2.8	553	22	AAB67031	218	11	2.0	111	22	ABP88298
146	15	2.8	553	22	AAB50262	219	11	2.0	112	16	AAR1613
147	15	2.8	553	22	AAB11756	220	11	2.0	115	17	AAB94779
148	15	2.8	553	23	AARU76508	221	11	2.0	115	22	ABP88232
149	15	2.8	553	23	AARU76508	222	11	2.0	115	22	ABP88232
150	15	2.8	553	23	AARU76508	223	11	2.0	115	18	AWA33550
151	15	2.8	553	23	AARU76508	224	11	2.0	115	18	AWA33550
152	15	2.8	553	23	AARU76508	225	11	2.0	116	21	AWA33550
153	15	2.8	553	23	AARU76508	226	11	2.0	116	23	AWA33550
154	15	2.8	553	23	AARU76508	227	11	2.0	116	23	AWA33550
155	15	2.8	553	23	AARU76508	228	11	2.0	116	23	AWA33550
156	15	2.8	553	23	AARU76508	229	11	2.0	116	23	AWA33550
157	15	2.8	553	23	AARU76508	230	11	2.0	116	23	AWA33550
158	15	2.8	553	23	AARU76508	231	11	2.0	116	23	AWA33550
159	15	2.8	553	23	AARU76508	232	11	2.0	116	23	AWA33550
160	15	2.8	553	23	AARU76508	233	11	2.0	116	23	AWA33550
161	15	2.8	553	23	AARU76508	234	11	2.0	116	23	AWA33550
162	15	2.8	553	23	AARU76508	235	11	2.0	116	23	AWA33550
163	15	2.8	553	23	AARU76508	236	11	2.0	116	23	AWA33550
164	15	2.8	553	23	AARU76508	237	11	2.0	116	23	AWA33550
165	15	2.8	553	23	AARU76508	238	11	2.0	116	23	AWA33550
166	15	2.8	553	23	AARU76508	239	11	2.0	116	23	AWA33550
167	15	2.8	553	23	AARU76508	240	11	2.0	116	23	AWA33550
168	15	2.8	553	23	AARU76508	241	11	2.0	116	23	AWA33550
169	15	2.8	553	23	AARU76508	242	11	2.0	116	23	AWA33550
170	15	2.8	553	23	AARU76508	243	11	2.0	116	23	AWA33550
171	15	2.8	553	23	AARU76508	244	11	2.0	116	23	AWA33550
172	15	2.8	553	23	AARU76508	245	11	2.0	116	23	AWA33550
173	15	2.8	553	23	AARU76508	246	11	2.0	116	23	AWA33550
174	15	2.8	553	23	AARU76508	247	11	2.0	116	23	AWA33550
175	15	2.8	553	23	AARU76508	248	11	2.0	116	23	AWA33550
176	15	2.8	553	23	AARU76508	249	11	2.0	116	23	AWA33550
177	15	2.8	553	23	AARU76508	250	11	2.0	116	23	AWA33550
178	15	2.8	553	23	AARU76508	251	11	2.0	116	23	AWA33550
179	15	2.8	553	23	AARU76508	252	11	2.0	116	23	AWA33550
180	15	2.8	553	23	AARU76508	253	11	2.0	116	23	AWA33550
181	15	2.8	553	23	AARU76508	254	11	2.0	116	23	AWA33550
182	15	2.8	553	23	AARU76508	255	11	2.0	116	23	AWA33550
183	15	2.8	553	23	AARU76508	256	11	2.0	116	23	AWA33550
184	15	2.8	553	23	AARU76508	257	11	2.0	116	23	AWA33550
185	15	2.8	553	23	AARU76508	258	11	2.0	116	23	AWA33550
186	15	2.8	553	23	AARU76508	259	11	2.0	116	23	AWA33550
187	15	2.8	553	23	AARU76508	260	11	2.0	116	23	AWA33550
188	15	2.8	553	23	AARU76508	261	11	2.0	116	23	AWA33550
189	15	2.8	553	23	AARU76508	262	11	2.0	116	23	AWA33550
190	15	2.8	553	23	AARU76508	263</					



PR	Qy	541	GGMG	545
XX				
PA	Db	541	GGMG	545
(STRE-) STRESSGEN BIOTECHNOLOGIES CORP.				
XX				
PI				
XX				
DR				
N-PSDB;				
XX				
PT				
New nucleic acid encoding heat shock protein-60 from <i>Streptococcus</i> , useful in vaccines, as carriers for other immunogens, as anticancer agents and for diagnosis				
XX				
PS				
Claim 11; Fig 4A-B; 176pp; English.				
XX				
XX				
CC				
The present sequence represents a heat shock protein, designated Hsp60-2. The protein, its fragments, variants and fusion proteins, are used to elicit or enhance an immune response against <i>Streptococcus</i> and to elicit a similar response to a target antigen fused to the protein. Unlike other immunological carriers, Hsp60 proteins are not immunosuppressive so provide an increased response to any conjugated or fused antigen. Also, where used for cancer control, they lack the side effects associated with endotoxins. They can also be used to detect (e.g., sarcoma or cancers of breast, ovary, prostate, lung, pancreas or liver). The hsp60 polynucleotide is used for recombinant production of the protein, as a source of primers and probes for detecting streptococci in standard hybridization/amplification assays, and therapeutically in gene therapy vectors.				
XX				
SQ				
Sequence 545 AA:				
Query Match 100%; Score 545; DB 20; Length 545;				
Best Local Similarity 100.0%; Pred. No. 0; Mismatches 0; Indels 0; Gaps 0;				
Matches 545; Conservative 0; MisMatches 0; Indels 0; Gaps 0;				
Qy 1 MAKEIKFSADARAAMVRGVDMLADTVKVTGPKGRNVVLEKAFGSPPLITNDGVITKE 60				
Db 1 MAKEIKFSADARAAMVRGVDMLADTVKVTGPKGRNVVLEKAFGSPPLITNDGVITKE 60				
Qy 61 LEDHTEMGAKLIVSEASKTNDIAGGTTATVLTQIAVHEGKVNAGANPIGRRGIE 120				
Db 61 LEDHTEMGAKLIVSEASKTNDIAGGTTATVLTQIAVHEGKVNAGANPIGRRGIE 120				
Qy 121 TATAAAVEALKATAQOPVSKGKAIAQAVAVSSRSEKVGVISEAMERYGNDGVITTEESRG 180				
Db 121 TATAAAVEALKATAQOPVSKGKAIAQAVAVSSRSEKVGVISEAMERYGNDGVITTEESRG 180				
Qy 181 METELEVVEGMQDRGVLQSQMVNTDNEKWAIDLENPFILITDKVSNIQDILPYLEEVK 240				
Db 181 METELEVVEGMQDRGVLQSQMVNTDNEKWAIDLENPFILITDKVSNIQDILPYLEEVK 240				
Qy 241 TNRPLLIADDVGEALPTVLNKTRGTVNVAKAPFGDFDRKAMLEDALIUGGTVT 300				
Db 241 TNRPLLIADDVGEALPTVLNKTRGTVNVAKAPFGDFDRKAMLEDALIUGGTVT 300				
Qy 301 EDIGLELKDTMTALCGQAKITVVDKSTDSTIVEEGSSBAAIRIALIKSOLRTTSDFDR 360				
Db 301 EDIGLELKDTMTALCGQAKITVVDKSTDSTIVEEGSSBAAIRIALIKSOLRTTSDFDR 360				
Qy 361 EKQERLAKLKGAGVAVIAKVPTEALKMKRIEDLNATRAAEVGVAGGGTALY 420				
Db 361 EKQERLAKLKGAGVAVIAKVPTEALKMKRIEDLNATRAAEVGVAGGGTALY 420				
Qy 421 IEKVALELBEDDATGRTNTVLAEEPPROQLNAGEGSVTIDKLKNSPAGCFNAIG 480				
Db 421 IEKVALELBEDDATGRTNTVLAEEPPROQLNAGEGSVTIDKLKNSPAGCFNAIG 480				
Qy 481 EWMDMIKGIDPVKVTRSALONIASVSLITTEAVANKRPEPATPAMPAGMDMM 540				
Db 481 EWMDMIKGIDPVKVTRSALONIASVSLITTEAVANKRPEPATPAMPAGMDMM 540				
Qy 5 IKSADARAAMVRGVDMLADTVKVTGPKGRNVVLEKAFGSPPLITNDGVITKE 64				
Db 5 IKSADARAAMVRGVDMLADTVKVTGPKGRNVVLEKAFGSPPLITNDGVITKE 64				
Qy 7 IKSADARAAMVRGVDMLADTVKVTGPKGRNVVLEKAFGSPPLITNDGVITKE 64				
Qy 0				
Db 7				
RESULT 2				
ID ABB28529 standard; Protein: 545 AA.				
XX				
XX				
AC ABB28529;				
XX				
DT 02-JUL-2002 (first entry)				
XX				
DE Streptococcus polypeptide SEQ ID NO 6234.				
XX				
KW Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae; group A streptococcus; Streptococcus pyogenes; antibacterial; antiinflammatory; infection; vaccine; meningitis; gene therapy.				
XX				
OS Streptococcus pyogenes.				
XX				
PN WO200234771-A2.				
XX				
PD 02-MAY-2002.				
XX				
PF 29-OCT-2001; 2001WO-GB04789.				
XX				
PR 27-OCT-2000; 2000GB-0026333.				
PR 24-NOV-2000; 2000GB-0028727.				
PR 07-MAR-2001; 2001GB-0005640.				
XX				
PA (CHIR-) CHIRON SPA.				
XX				
PA (GENO-) INST GENOMIC RES.				
XX				
PI Telford J, Massignani V, Margarit Ros VI, Grandi G, Fraser C;				
XX				
DR WPI; 2002-352536-738.				
XX				
DR N-PSDB; ABN69160.				
XX				
PT New Streptococcus protein for the treatment or prevention of infection caused by Streptococcus bacteria, such as meningitis, and for detecting a compound that binds to the protein -				
XX				
PS Claim 1; Page 376; 4525pp; English.				
XX				
CC The invention relates to a protein (ABB25413-ABB30895) from group B streptococcus (GBS) (Streptococcus agalactiae), or group A streptococcus/GAS (Streptococcus pyogenes), comprising one of 543 sequences (SI), given in the specification. The proteins have antibacterial and antiinflammatory activity. (I), nucleic acids encoding (I), ABN6044-ABN1256 and antibodies that bind (I) are used in the manufacture of medicaments for the treatment or prevention of infection or disease caused by Streptococcus bacteria, particularly <i>S. agalactiae</i> and <i>S. pyogenes</i> . Nucleic acids encoding (I) are used to detect Streptococcus in a biological sample. (I) is used to determine whether a compound binds to (I). A composition comprising (I) or a nucleic acid encoding (I), may be used as a vaccine or diagnostic composition. The disease caused by Streptococcus that is prevented or treated may be meningitis. Nucleic acid encoding (I) may be used to recombinantly produce (I) and may be used in gene therapy. Antibodies to (I) are used for affinity chromatography, immunoassays, and distinguishing/identifying Streptococcus proteins.				
XX				
SQ Sequence 545 AA:				
Query Match 98.7%; Score 538; DB 23; Length 545;				
Best Local Similarity 100.0%; Pred. No. 0; Mismatches 0; Indels 0; Gaps 0;				
Matches 538; Conservative 0; MisMatches 0; Indels 0; Gaps 0;				

QY 65 FENMGAKLVSEVASKTNIDTAGDGTATVLTQAVIHEGLKNTVAGANPIGIRGIRETATA 124  
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 Db 67 FENMGAKLVSEVASKTNIDTAGDGTATVLTQAVIHEGLKNTVAGANPIGIRGIRETATA 126  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 CC streptococcus/gbs (streptococcus agalactiae) or group b streptococcus/gas  
 QY 125 TAVEALKAIQPVSGKEATAQVAVASSERSERKVEYISEAMERVGNDVITERSRGME 184  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 CC (streptococcus pyogenes), comprising one of 5483 sequences (s1), given in  
 Db 127 TAVEALKAIQPVSGKEATAQVAVASSERSERKVEYISEAMERVGNDVITERSRGME 186  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 CC activity. (i), nucleic acids encoding (i), abn604 abn126 and  
 antibodies that bind (i) are used in the manufacture of medicaments for  
 QY 185 LEVENFRODFGYLSQWYMDNSMADLENFILTDKVKSNQDIPPLEBLVKTRP 244  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 Db 187 LEVNEQMDQFGRYLSQWYMDNSMADLENFILTDKVKSNQDIPPLEBLVKTRP 246  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 245 LLIADDDGEGALPLVLUKIRGTFENYAVAPGRGDRRMLDIALTGGVTRBDLG 304  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 Db 247 LLIADDDGEGALPLVLUKIRGTFENYAVAPGRGDRRMLDIALTGGVTRBDLG 306  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 305 LELKDNTMTAQQAATKVDKSTVTEGSESSEANRITALIKSOLQTTSDPREKLQ 364  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 Db 307 LELKDNTMTAQQAATKVDKSTVTEGSESSEANRITALIKSOLQTTSDPREKLQ 366  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 365 ERLAKLLAGGVAVKGAPETALKEMMURIDALNATRAAVEEVAGGTLITYEKV 424  
 CC ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 Db 367 ERLAKLLAGGVAVKGAPETALKEMMURIDALNATRAAVEEVAGGTLITYEKV 426  
 ID AABP28528 standard; Protein; 540. AA.  
 AC AABP28528;  
 XX DT 02-JUL-2002 (first entry)  
 DE Streptococcus polypeptide SEQ ID NO 6232.  
 XX KW Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae;  
 KW group A streptococcus; Streptococcus; progenes; antibacterial;  
 KW antiinflammatory; infection; vaccine; meningitis; gene therapy.  
 OS Streptococcus agalactiae.  
 PN WO200234771-A2.  
 PD 02-MAY-2002.  
 XX PF 29-OCT-2001; 2001WO-GB04789.  
 XX PR 27-OCT-2000; 2000GB-0026333.  
 PR 24-NOV-2000; 2000GB-0028727.  
 PR 07-MAR-2001; 2001GB-005640.  
 XX PA (CHIR-) CHIRON SPA.  
 PA (GENO-) INST GENOMIC RES.  
 XX PI Telford J, Maignani V, Margarit Ros YI, Grandi G, Fraser C;  
 PT Tettelin H;  
 XX WPI: 2002-35236/38.  
 DR N-PSDB; ABN69159.

PT New Streptococcus protein for the treatment or prevention of infection  
 PT or disease caused by Streptococcus bacteria, such as meningitis, and  
 PT for detecting a compound that binds to the protein -  
 XX

RESULT 3  
 AABP28528

PS Claim 1; Page 3785; 4525PP; English.

XX The invention relates to a protein (AABP25413-AABP30895) from group B  
 streptococcus/gbs (streptococcus agalactiae) or group b streptococcus/gas  
 (streptococcus pyogenes), comprising one of 5483 sequences (s1), given in  
 the specific specification. The proteins have antibacterial and antiinflammatory  
 activity. (i), nucleic acids encoding (i), abn604 abn126 and  
 antibodies that bind (i) are used in the manufacture of medicaments for  
 the treatment or prevention of infection or disease caused by  
 Streptococcus bacteria, particularly S. agalactiae and S. pyogenes.  
 CC Nucleic acids encoding (i) are used to detect Streptococcus in a  
 biological sample. (i) is used to determine whether a compound binds to  
 (i). A composition comprising (i) or a nucleic acid encoding (i), may be  
 used as a vaccine or diagnostic composition. The disease caused by  
 Streptococcus that is prevented or treated may be meningitis. Nucleic  
 acid encoding (i) may be used to recombinantly produce (i) and may be  
 used in gene therapy. Antibodies to (i) are used for affinity  
 chromatography, immunoassays, and distinguishing/identifying  
 Streptococcus proteins.

SQ Sequence 540 AA:

Query Match 14.3%; Score 78; DB 23; Length 540;  
 Best Local Similarity 100.0%; Pres. No. Je-66; Patches 78; Conservative 0; Mismatches 0; Index 0; Gaps 0;

QY 22 LADTVKVLGPGRNVLEKAFAKGSPPLITNDGVTIAKEELEDFHDFENMGAKLVSEVASKTN 81  
 Db 22 LADTVKVLGPGRNVLEKAFAKGSPPLITNDGVTIAKEELEDFHDFENMGAKLVSEVASKTN 81  
 QY 82 DIAGDGTTATVLTQAV 99  
 Db 82 DIAGDGTTATVLTQAV 99

RESULT 4  
 AAM01101  
 ID AAM01101 standard; Protein; 540. AA.  
 XX AC AAM01101;  
 AC AAM01101;  
 XX DT 02-OCT-2001 (first entry)  
 DE CPE 104 protein sequence.  
 XX KW Antibacterial; vaccine; gene therapy; bacterial cell wall viability;  
 KW CFE; CEG; Conserved Essential Gene; bacterial infection;  
 KW antisense therapy; antibiotic resistance.  
 OS Streptococcus pneumoniae.  
 PN WO200149721-A2.  
 XX PD 12-JUL-2001.  
 XX PF 29-DEC-2000; 2000WO-US35604.  
 PR 30-DEC-1999; 99US-0174089.  
 XX PA (BRIM ) BRISTOL-MYERS SQUIBB CO.  
 XX PI Dougherty TJ, Pucci MJ, Dougherty BA, Davison DB, Brucolieri RE;  
 PI Thanassi JA;  
 XX DR WPI: 2001-466721/54.  
 DR N-PSDB; AAH90800.

PT Nucleic acids encoding conserved essential genes involved in bacterial  
 PT replication which are potential targets for the treatment of antibiotic  
 PT resistant bacterial infections -  
 XX Claim 27; Pages 356-358; 380pp; English.

The present invention relates to nucleic acids (AM90701-AM90918), encoding polypeptides (AA01002-AA0114), which are essential for the viability of a bacterial cell wall. The acronym CEG stands for "Conserved Essential Gene". The nucleic acids are useful for detecting the presence of proteins essential for the viability of a bacterial cell wall in samples such as cells, tissues, biological fluids, blood, serum, nose, ear or throat swabs with ligands, and for detecting corresponding target nucleic acid molecules with complementary sequences. The nucleic acids are also useful for determining whether a genomic nucleotide sequence of interest is essential for viability of a bacterial cell or whether it resides within an operon, by integrating an exogenous nucleotide sequence comprising a portion of an open reading frame of the genomic sequence of interest (comprising 200-500 base pairs) into the genomic sequence of interest, which confers a selectable phenotype to the cell, and determining cell viability with a selectable agent such as chloramphenicol. The nucleic acids and proteins are also useful as vaccines and for treating bacterial infections with gene therapy and antisense therapy. The nucleic acids also enable identification of targets suitable for the treatment of antibiotic resistant bacterial infections.

SQ

Query Match 12.8%; Score 70; DB 22; Length 540;  
Best Local Similarity 100.0%; Pred. No. 1.6e-59;  
Matches 70; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 242 NRPLLIADDVGEALPILVNLKIRGTFENWAVAKPGCFGDRRKAMLDIALITGGVITE 301  
Db 242 NRPLLIADDVGEALPILVNLKIRGTFENWAVAKPGCFGDRRKAMLDIALITGGVITE 301

Oy 302 DLGLBLKDAT 311  
Db 302 DLGLBLKDAT 311

RESULT 5

ID AAY23902  
ID AAY23902 standard; Protein: 541 AA.

AC AAY23902;  
DT 22-SEP-1999 (first entry)

XX Streptococcus pneumoniae heat shock protein (Hsp)60-2.  
DE Heat shock protein; Hsp60-2; immune response; immunological carrier;  
KW cancer control; tumour; sarcoma; cancer; gene therapy.  
OS Streptococcus pneumoniae.  
XX WO935270-A1.

PN 15-JUL-1999.  
PP 29-DEC-1998; 98WO-CA01203.

PR 31-DEC-1997; 97US-0001737.  
XX (STRE-) STRESSGEN BIOTECHNOLOGIES CORP.  
PI Mizzen L, Wisniewski J;  
XX WPI: 1999-43039/35.

DR N-PSDB; AAX86134.  
XX New nucleic acid encoding heat shock protein-60 from Streptococcus, useful in vaccines as carriers for other immunogens, as anticancer agents and for diagnosis.  
XX Claim 11; Fig 2A-B; 16pp; English.

The present sequence represents a heat shock protein, designated Hsp60-2.

The protein, its fragments, variants and fusion proteins, are used to elicit or enhance an immune response against *Streptococcus*, and to elicit a similar response to a target antigen fused to the protein. Unlike other immunological carriers, Hsp60 proteins are not immunosuppressive so provide an increased response to any conjugated or fused antigen. Also, where used for cancer control, they lack the side effects associated with endotoxins. They can also be used to detect specific antibodies and in treatment or prevention of tumours (e.g. sarcoma or cancers of breast, ovary, prostate, lung, pancreas or liver). The Hsp60 polynucleotide is used for recombinant production of the protein, as a source of primers and probes for detecting streptococci in standard hybridization/amplification assays, and therapeutically in gene therapy vectors.

SQ Sequence 541 AA;

Query Match 12.8%; Score 70; DB 20; Length 541;  
Best Local Similarity 100.0%; Pred. No. 1.6e-59;  
Matches 70; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 242 NRPLLIADDVGEALPILVNLKIRGTFENWAVAKPGCFGDRRKAMLDIALITGGVITE 301  
Db 242 NRPLLIADDVGEALPILVNLKIRGTFENWAVAKPGCFGDRRKAMLDIALITGGVITE 301

Oy 302 DLGLBLKDAT 311  
Db 302 DLGLBLKDAT 311

RESULT 6

ID AAB31619  
ID AAB31619 standard; Protein: 641 AA.

AC AAB31619;  
DT 30-APR-2001 (first entry)

XX DE Amino acid sequence of Hsp65-27 fusion protein.  
XX KW Heat shock protein; Hsp; Th1 response; Th1 cell; CD4+ T lymphocyte cell; KW lymphocyte; Hsp65; Hsp40; Hsp10; Hsp60; Hsp71; microbial pathogen; KW E7 protein.  
XX OS Synthetic.  
OS Streptococcus pneumoniae.  
OS Human papillomavirus.  
XX PN WO200104344-A2.  
XX PD 18-JAN-2001.  
XX PF 10-JUL-2000; 2000WO-US18828.  
XX PR 08-JUL-1999; 99US-0143757.  
XX PA (STRE-) STRESSGEN BIOTECHNOLOGIES CORP.  
XX PI Siegel M, Chu NR, Mizzen LA;  
XX WPI: 2001-138361/14.  
XX DR N-PSDB; AAF25036.

XX PT Screening for compounds that stimulate Th1-like responses in CD4+ T lymphocyte cells.  
XX Example 15; Fig 15A-B; 88pp; English.  
PT The present sequence represents a fusion protein comprising a Streptococcus pneumoniae heat shock protein (Hsp) 65 fused to a HSV16 E7 protein. The fusion protein is used in the method of the invention. The specification describes a method of determining whether a compound stimulates a Th1-like response. Th1 cells are a subset of CD4+ T lymphocyte cells. The method comprises contacting naive lymphocytes



		Db	266	RGTFNVVAVKAPQFGDRKAMLEDTAILGG	296
RESULT	9				
AY23916	standard; Protein;		539	AA.	
ID	AY23916				
AC	AY23916;				
XX					
XX	22-SEP-1999	(first entry)			
DE	Amino acid sequence of a heat shock protein.				
XX	Heat shock protein; Hsp; immune response; immunological carrier; cancer control; tumour; sarcoma; cancer; gene therapy.				
KW	Staphylococcus aureus.				
OS					
XX	W09935270-A1.				
PN					
XX	15-JUL-1999.				
PD					
XX	PP-29-DEC-1998;	99BWO-CA01203.			
XX	XX				
PR	31-DEC-1997;	97US-0001737.			
PR					
XX	PA	(STRB-) STRESSGEN BIOTECHNOLOGIES CORP.			
PI					
XX	Mizzen L, Wisniewski J;				
DR	WPI; 1999-430397/36.				
XX	PT	New nucleic acid encoding heat shock protein-60 from Streptococcus, useful in vaccines, as carriers for other immunogens, as anticancer agents and for diagnosis.			
PT	AY23905-30 represent heat shock Proteins (Hsps). The specification describes streptococcal Hsps, designated Hsp60. These proteins, their fragments, variants and fusion proteins, are used to elicit or enhance an immune response against Streptococcus, and to elicit a similar response to a target antigen fused to the protein. Unlike other immunological carriers, Hsp60 proteins are not immunosuppressive so provide an increased response to any conjugated or fused antigen. Also, where used for cancer control, they lack the side effects associated with endotoxins. They can also be used to detect specific antibodies and in treatment or prevention of tumours (e.g. sarcoma or cancers of breast, ovary, prostate, lung, pancreas or liver). The Hsp60 polynucleotide is used for recombinant production of the protein, as a source of primers and probes for detecting streptococci in standard hybridization/amplification assays, and therapeutically in gene therapy vectors.				
XX	SQ	Sequence 539 AA:			
Query Match	4.0%	Score 26; DB 20; Length 539;			
Best Local Similarity	100.0%	Pred. No. 4.3e-16;			
Matches	26;	Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
OY	356	SDFDREKIQERLAKLAGGVAVIKVGA	381		
Db	357	SDFDREKIQERLAKLAGGVAVIKVGA	382		
RESULT	10				
AY37100					
ID	AY37100 standard; Protein;	224	AA.		
AC	AY37100;				
XX	07-OCT-1999	(first entry)			
RESULT	11				
AAW10977					
ID	AAW10977 standard; Protein;	419	AA.		
AC	AAW10977;				
XX	AAW10977;				
DT	21-MAY-1997	(first entry)			
XX	Dihydrofolate reductase-Chlamydia pneumoniae antigen fusion protein.				
XX	Dihydrofolate reductase; Chlamydia pneumoniae; pneumonia;				
KW	DHFR; dihydrofolate reductase; Chlamydia pneumoniae; pneumonia; antibody production; diagnosis; fusion protein.				
XX	Chlamydia pneumoniae (chimeric).				
OS					
XX	Chlamydia pneumoniae (chimeric).				
FH					
Key					
Region	Location/Qualifiers				
FT	1..160				
FT	/note "dihydrofolate reductase region"				
FT	161..170				
FT	/note "peptide linker"				



SO Sequence 544 AA;

Query Match 4.4%; Score 24; DB 12; Length 544;  
Best Local Similarity 100.0%; Pred. No. 3.7e-14; Mismatches 0; Indels 0; Gaps 0;

Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 273 AVKAPGFGRKAMEDIALTGG 296  
|||||.....|||||.....|||  
Db 275 AVKAPGFGRKAMEDIALTGG 298  
|||||.....|||||.....|||

RESULT 14  
AAR67383  
ID AAR67383 standard; Protein: 544 AA.  
XX  
AC  
XX  
AAR67383;  
XX  
DT 22-JUN-1995 (first entry)  
XX  
C. psittaci HypB gene product.  
XX  
Urease; immunogen; vaccine; diagnostic; heat shock protein; HSP;  
KW GroEL-like protein; Helicobacter felis;  
XX  
OS Chlamydia psittaci.  
XX  
PR WO94265001-A.  
PN  
XX  
PD 24-NOV-1994.  
XX  
PF 19-MAY-1994; 94WO-EP01625.  
XX  
PR 19-MAY-1993; 93EP-0401309.  
PR 19-NOV-1993; 93WO-EP03259.  
XX  
PA (INRM ) INST NAT SANTE & RECH MEDICALE.  
PA (INSP ) INST PASTEUR.  
XX  
PI Ferrero R., Labigne A., Suerbaum S., Thibierge J.;  
XX  
DR WPI: 1995-006797/01.  
XX  
PT DNA from Helicobacter pylori and Helicobacter felis - used to develop prods. for detection, treatment and prevention of Helicobacter infection.  
XX  
PS Disclosure: Fig. 7A(i-vii); 168pp; English.

The sequence of the Helicobacter pylori heat shock protein A (given in AAR67374) was compared to that of other GroEL-like proteins from Legionella pneumophila (AAR67381), Escherichia coli (AAR67382), Chlamydia psittaci (AAR67383), Mycobacterium leprae (AAR67384), human mitochondrial protein Pi (AAR67385), and regions of homology were identified.

SQ Sequence 544 AA;

Query Match 4.4%; Score 24; DB 18; Length 544;  
Best Local Similarity 100.0%; Pred. No. 3.7e-14; Mismatches 0; Indels 0; Gaps 0;

Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 273 AVKAPGFGRKAMEDIALTGG 296  
|||||.....|||||.....|||  
Db 275 AVKAPGFGRKAMEDIALTGG 298  
|||||.....|||||.....|||

RESULT 15  
AAW10975  
ID AAW10975 standard; Protein: 544 AA.  
XX  
AC  
XX  
AAW10975;  
XX  
DT 21-MAY-1997 (first entry)

XX DE Chlamydia pneumoniae antigen used as DHFR-linked fusion protein.  
XX KW DHFR; dihydrofolate reductase; Chlamydia pneumoniae; pneumonia;  
antibody production; diagnosis; fusion protein.  
XX OS Chlamydia pneumoniae.  
XX  
KEY Location/Qualifiers  
FT Misc-difference 25 /note= "given as Gle in three letter amino acid code in the specification"  
FT FT  
PR JP08294391-A.  
PN XX  
PD 12-Nov-1996.  
XX  
PF 28-APR-1995; 95JP-0106007.  
XX  
PR 28-APR-1995; 95JP-0106007.  
XX  
PA (HITB ) HITACHI CHEM CO LTD.  
DR WPI: 1997-036901/04.  
XX  
PT Fusion protein comprising di-hydro-folate reductase and Chlamydia pneumoniae antigen used in prodn. of C. pneumoniae antibodies for diagnosis of infection  
PT  
XX  
PS Claim 1: Page 11-12; 17pp; Japanese.  
XX  
CC AAW10974 encodes a 544 residue Chlamydia pneumoniae antigen, at least 5 contiguous amino acids of which are fused to a dihydrofolate reductase (DHFR) enzyme. Fusion proteins produced are useful for the production of anti-C. pneumoniae antibodies which are useful for the diagnosis and treatment of infectious diseases caused by C. pneumoniae.  
CC  
CC  
CC  
XX  
SQ Sequence 544 AA;

Query Match 4.4%; Score 24; DB 18; Length 544;  
Best Local Similarity 100.0%; Pred. No. 3.7e-14; Mismatches 0; Indels 0; Gaps 0;

Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 273 AVKAPGFGRKAMEDIALTGG 296  
|||||.....|||||.....|||  
Db 275 AVKAPGFGRKAMEDIALTGG 298  
|||||.....|||||.....|||

Search completed: April 8, 2003, 14:35:09  
Job time : 81 secs